CLAIMS

What is claimed is:

1. In a computer architecture, a system for selectively permitting data loads in a pipeline to be executed based upon a speculative data load in a fast-load data cache, comprising:

one or more pipelines, each pipeline able to selectively load, execute, and flush a series of data loads, and each data load selectively flagged to indicate dependence upon the loading of a specific data load; and

at least one fast-load data cache that loads one or more speculative data loads;

wherein upon ~~the~~ determination of a misprediction for a specific speculative data load, the data loads flagged as dependent on that specific speculative data load not being executed in the one or more pipelines.

2. The system of claim 1, wherein the speculative data load is loaded in the one or more pipelines.

3. The system of claim 1, wherein one or more of the data loads in the one or more pipelines are not dependent on any specific data load and not selectively flagged.

4. The system of claim 1, wherein the flag is a bit within the data load.

5. The system of claim 1, wherein the flag is attached to the data load

6. The system of claim 1, wherein the flagged dependent specific data load is flushed from the one or more pipelines upon the determination of a misprediction for a data load.

7. The system of claim 1, wherein the fast-load data cache includes a directory.

8. The system of claim 1, wherein the fast-load data cache does not include a directory.

9. A method for selectively permitting data loads in a pipeline to be executed based upon a speculative data load in a fast-load data cache, comprising the steps of:

loading one or more data loads into a pipeline;

selectively flagging one or more of the data loads to indicate dependence upon the load of a specific data load;

loading a speculative data load in a fast-load data cache;

determining if the speculative data load is a misprediction; and

selectively executing the data loads not flagged as dependent on that specific data load determined to be a misprediction.

10. The method of claim 9, further comprising the step of loading the speculative data load into the pipeline.

11. The method of claim 9, wherein the step of selectively flagging the one or more data loads does not flag any data load that is not dependent on any specific data load.

12. The method of claim 9, wherein the step of selectively flagging the data load occurs through altering a bit within the data load.

13. The method of claim 9, wherein the step of selectively flagging the data load occurs through attaching a flag to the data load.

14. The method of claim 7, further comprising the step of flushing the flagged dependent specific data load from the pipeline upon the determination of a misprediction of a data load.

15. In a computer architecture, a system for selectively permitting instructions in a pipeline to be executed based upon a speculative data load, comprising:

a means for pipelining one or more data loads, the means able to selectively load, execute, and flush each data load;

a means for selectively flagging one or more data loads to indicate dependence upon the load of a specific data load;

a means for speculatively loading one or more data loads; and

a means for determining a misprediction of a speculative data load,

wherein upon the determination of a misprediction in a speculative data load, the means for pipelining not using data loads flagged as dependent on that specific data load.

16. The system of claim 13, wherein the pipeline means flushes the flagged dependent data load upon the determination of a misprediction in a speculative data load.